

BIOGRAPHICAL SKETCH

NAME Babnigg, Gyorgy	POSITION TITLE Assistant Bioinformatics Specialist/Biochemist		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Technical University of Budapest, Hungary	B.S.	1984	Chemistry
Technical University of Budapest, Hungary	M.S.	1986	Biochemistry
University of Chicago	Ph.D,	1997	Pharmacology, Physiology

A. Positions and Honors.

Positions and Employment

1986-1989 Research Associate, Hungarian Cancer Research Institute Budapest, Hungary
1989-1991 Research Technician, Pharmacology and Physiology, University of Chicago, IL
1991-1997 Graduate Student, Pharmacology and Physiology, University of Chicago, IL
1997-2000 Research Associate, Pharmacology and Physiology, University of Chicago, IL
2000-2002 Postdoctoral Appointee, Biosciences, Argonne National Laboratory, IL
2002- Assistant Bioinformatics Scientist, Biosciences, Argonne National Laboratory, IL

Other Experience and Professional Memberships

1991- AAAS member
2006- HUPO member

Honors

1984 First Prize at Competition of Theses in Hungary
1984 Departmental Honors, Technical University of Budapest
1986 Departmental Honors, Technical University of Budapest
1997 Harry Ginsburg Memorial Prize, University of Chicago

B. Selected peer-reviewed publications (in chronological order).

1. Byron, K.L., **Babnigg, G.** and Villereal, M.L. (1992). Bradykinin-induced Ca²⁺-entry, release, and refilling of intracellular Ca²⁺ stores. Relationships revealed by image analysis of individual human fibroblasts. *J. Biol. Chem.* 267(1): 108-118
2. McSwine R.I., **Babnigg, G.**, Musch, M.W., Chang, E.B. and Villereal, M.L. (1994). Expression and phosphorylation of NHE1 in wild-type and transformed human and rodent fibroblasts. *J. Cell Physiol.*, 161(2): 351-357
3. **Babnigg, G.**, Bowersox, S. R., and Villereal, M. L., (1997) The Role of pp60^{C-src} in the Regulation of Calcium Entry via Store-Operated Calcium Channels. *J. Biol. Chem.* 272(47): 29434-29437.
4. Wu, X., **Babnigg, G.**, Villereal, M.L. (1999). Functional significance of human trp1 and trp3 in store-operated calcium entry in HEK-293 cells. *APSTRACTS* 6:0271C

5. **Babnigg, G.**, B. Heller, and M.L. Villereal (2000) Cell-to-cell variation in store-operated calcium entry in HEK-293 cells and its impact on the interpretation of data from stable clones expressing exogenous calcium channels. *Cell Calcium*, Vol. 27(2): p. 61-73
6. Wu, X., **G. Babnigg**, and M.L. Villereal (2000) Functional significance of human Trp1 and Trp3 in store-operated calcium entry in HEK293 cells. *Am J Physiol Vol.* 278:C526-536
7. Wu, X., **G. Babnigg**, M. L. Villereal (2000). Store-operated calcium entry in HEK293 cells: Are human transient receptor potential (Htrp1, Htrp3, and Htrp4) proteins functionally important? *FASEB J* 14(4):A577
8. **Babnigg, G.**, M. L. Villereal (2000) A comparison of Thapsigargin-, bradykinin-, and carbachol-stimulated calcium responses in HEK-293 cells. *FASEB J* 14(4):A577
9. Giometti, C.S., Reich, C.I., Tollaksen, S.L., **Babnigg, G.**, Lim, H., Yates, J.R. 3rd, Olsen, G.J. (2001) Structural modifications of *Methanococcus jannaschii* flagellin proteins revealed by proteome analysis. *Proteomics Aug*;1(8):1033-1042
10. Giometti, C.S., Reich, C.I., Tollaksen, S.L., **Babnigg, G.**, Lim, H., Yates, J.R. 3rd, Olsen, G.J.(2001) Structural modifications of *Methanococcus jannaschii* flagellin proteins revealed by proteome analysis. *Eur. Mass Spectrom.* 7, 207–217
11. Wu, X., **G. Babnigg**, T. Zagrinichnaya, M.L. Villereal (2002) The role of endogenous human TRP4 in regulating carbachol-induced calcium oscillations in HEK-293 cells. *J Biol Chem* 277(16), 13597-608
12. Giometti, C.S., Reich, C., Tollaksen, S., **Babnigg, G.**, Lim, H., Zhu, W., Yates, J., Olsen, G. (2002) Global analysis of a "simple" proteome: *Methanococcus jannaschii*. *J Chromatogr B Analyt Technol Biomed Life Sci.* 2002 Dec 25;782(1-2):227-243.
13. **Babnigg, G.**, Zagranichnaya, T., Wu, X., Villereal ML. (2003) Differential tyrosine phosphorylation of plasma membrane Ca²⁺-ATPase and regulation of calcium pump activity by carbachol and bradykinin. *J Biol Chem.* 2003 Apr 25;278(17):14872-14882
14. **Babnigg G**, Giometti CS. (2003) ProteomeWeb: a web-based interface for the display and interrogation of proteomes. *Proteomics.* 2003 May;3(5):584-600.
15. **Babnigg G**, Giometti CS. (2004) GELBANK: a database of annotated two-dimensional gel electrophoresis patterns of biological systems with completed genomes. *Nucleic Acids Res.* 2004 Jan 1;32 Database issue:D582-D585
16. Pirun M, **Babnigg G**, Stevens FJ. (2004) Template-based recognition of protein fold within the midnight and twilight zones of protein sequence similarity. *J Mol Recognit.* 2004 Nov 12;
17. Stevens FJ, Kuemmel C, **Babnigg G**, Collart FR. (2004) Efficient recognition of protein fold at low sequence identity by conservative application of Psi-BLAST: application. *J Mol Recognit.* Mar-Apr;18(2):150-157
18. Kolker E, Picone AF, Galperin MY, Romine MF, Higdon R, Makarova KS, Kolker N, Anderson GA, Qiu X, Auberry KJ, **Babnigg G**, Beliaev AS, Edlefsen P, Elias DA, Gorby YA, Holzman T, Klappenebach JA, Konstantinidis KT, Land ML, Lipton MS, McCue LA, Monroe M, Pasa-Tolic L, Pinchuk G, Purvine S, Serres MH, Tsapin S, Zakrajsek BA, Zhu W, Zhou J, Larimer FW, Lawrence CE, Riley M, Collart FR, Yates JR 3rd, Smith RD, Giometti CS, Nealson KH, Fredrickson JK, Tiedje JM. (2005) Global profiling of *Shewanella oneidensis* MR-1: expression of hypothetical genes and improved functional annotations. *Proc Natl Acad Sci U S A.* 2005 Feb 8;102(6):2099-2104
19. Chen Y, Borowicz S, Fackenthal J, Collart FR, Myatt E, Moy S, **Babnigg G**, Wilton R, Boernke WE, Schiffer M, Stevens FJ, Olopade OI. (2006) Primary structure-based function characterization of BRCT domain replicates in BRCA1. *Biochem Biophys Res Commun.* 345(1):188-96.
20. **Babnigg G**, Giometti CS. (2006) A database of unique protein sequence identifiers for proteome studies. *Proteomics.* 2006 Jul 21;